IN THE SPECIFICATION

Please amend the specification as follows:

The paragraph beginning at page 5, line 4 is amended as follows:

The terms operation, machine, process, and chamber are used in the present application to describe various abstractions of the fabrication process. In an embodiment, an operation is a top level abstraction and may include subdivisions, such as, machines, processes, chambers, etc. It is to be understood that an operation may also be subdivided into further operations, according to an embodiment of the present operation for other abstracted analysis of data. In a further embodiment of the present invention, top-level operations may be further aggregated, up and including, considering an entire manufacturing facility as a single operation. In an embodiment, a machine is a mid-level abstraction and may include subdivisions, such as, processes, chambers, etc. In an embodiment, the term machine is not to be taken in a limiting sense as a single physical machine, but in a more broader sense as a collection of processes, chambers, other machines, etc. In an embodiment, a machine may denote the aggregation of multiple machines, including the subdivisions, if any, of such machines. In an embodiment, a process is a low-level abstraction and may include subdivisions, such as, chambers. In an embodiment, a process is a mid-level abstraction and may include subdivisions, such as, machines, chambers, etc. In an embodiment, a process may denote the aggregation of multiple processes, including the subdivisions, if any, of such processes. In an embodiment, a chamber is a low-level abstraction and typically will not include further subdivisions. In an embodiment, a chamber may denote the aggregation of multiple chambers and may include further subdivisions. Though the terms operation, machine, process and chamber are used to represent a hierarchical linking between manufacturing steps, this is not limiting. It is to be understood that an operation may be a single machine, an aggregation of machines, a single process, an aggregation of processes, a single chamber, an aggregation of chambers, or any combination. Further, any of the other steps, such as a process, may be performed by any combination of the other steps. For example, an operation may include wafer handling unit chambers which perform a process on a wafer. It will be understood by those skilled in the art, that any subdivision of manufacturing steps can be used

by embodiments of the present invention, and that mere use of other terms to denote

manufacturing steps does not depart from the scope of the present ~~invention~~ invention.

The paragraph beginning at page 13, line 1 is amended as follows:

Generally, the number of combinations of random n operations is given by:

$$Y = tC_n$$

where Y is the total number of combinations, t is the number of operations and C_n is the number

of individual machines performing a particular step. If the average of the number of possible

routes among the operations is assumed to be G, generally, the sum of the number of possible

routes in all t operations is given by:

$$Y = \sum\nolimits_{n=1}^{t} tC_n * G$$

where Y is the total number of combinations, t is the number of operations, G is the

number of possible routes and C_n is the number of individual machines performing a particular

step in the ~~process~~ process.